Amendments to and listing of the Claims:

1. (Original) A plasma surface treating method in which a pulse voltage is applied to a pair of opposing discharge electrodes to produce corona discharge between pointed ends of said discharge electrodes, and a surface of a workpiece is irradiated with excited species including plasma produced by the corona discharge, thereby treating said surface, wherein

a magnetic field is formed in a vicinity of said pointed ends of said pair of discharge electrodes where charged particles in the plasma exist, and the excited species including plasma are irradiated toward said surface of said workpiece by a force which acts as a pushing force on charged particles moving in the magnetic field.

2. (Original) A plasma surface treating method according to claim 1, wherein a rectangular pulse voltage is used as the pulse voltage.

3. (Original) A plasma surface treating method according to claim 1, wherein a pulse voltage formed by plural pulsating waves obtained by half-wave rectifying or full-wave rectifying an alternating voltage is used as the pulse voltage.

4. (Currently Amended) A plasma surface treating method according to ~~any one of claims 1 to 3~~ claim 1, wherein a reactive gas is introduced between said pair of discharge electrodes at atmospheric pressure or a vicinity of atmospheric pressure, whereby an excitation gas flow including plasma is caused to be irradiated toward said surface of said workpiece by a pushing force received from the magnetic field.

5. (Original) A plasma surface treating apparatus in which a pulse voltage is applied to a pair of opposing discharge electrodes to produce corona discharge between pointed ends of said discharge electrodes, and a surface of a workpiece is irradiated with excited species including plasma produced by the corona discharge, thereby treating said surface, wherein

magnetic field forming means is disposed which forms a magnetic field in a vicinity of said pointed ends of said pair of discharge electrodes where charged particles in the plasma exist, and which can apply a pushing force on charged particles moving in the magnetic field, the pushing force causing the excited species including plasma to be irradiated toward said surface of said workpiece.

6. (Original) A plasma surface treating apparatus according to claim 5, wherein said pulse voltage applying means is a rectangular pulse voltage generating power source.

7. (Original) A plasma surface treating apparatus according to claim 5, wherein said pulse voltage applying means is configured by an AC power source, and a rectifying circuit which generates a pulse voltage formed by plural pulsating waves obtained by half-wave rectifying or full-wave rectifying an alternating voltage of said power source.

8. (Currenlty Amended) A plasma surface treating apparatus according to ~~any one of claims 5 to 7~~ claim 5, wherein said magnetic field forming means is configured by: a permanent magnet; a pair of magnetic members which are connected to N and S poles of said permanent magnet, and which elongate to vicinities of said pointed ends of said pair of discharge electrodes; and a pair of pole pieces which are continuous to tip ends of said magnetic members, and which form a gap between end faces.

9. (Currenlty Amended) A plasma surface treating apparatus according to ~~any one of claims 5 to 7~~ claim 5, wherein said magnetic field forming means is configured by: an electromagnet connected to a DC power source; a pair of magnetic members which are connected to N and S poles of said electromagnet, and which elongate to vicinities of said pointed ends of said pair of discharge electrodes; and a pair of pole pieces which are continuous to tip ends of said magnetic members, and which form a gap between end faces.

10. (Currenlty Amended) A plasma surface treating apparatus according to ~~any one of claims 5 to 9~~ claim 5, wherein means for introducing a reactive gas between said pair of discharge electrodes at atmospheric pressure or a vicinity of atmospheric pressure is disposed, and the reactive gas is introduced via said means, whereby an excitation gas flow including plasma is caused to be irradiated toward said surface of said workpiece by a pushing force received from the magnetic field.